



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/051,565	06/08/98	SELDES LACHTS	D 98227

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EXAMINER	
SHERRER, C	
ART UNIT	PAPER NUMBER
1761	6

DATE MAILED: 09/29/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/051,565

Applicant(s)

Seldeslachts

Examiner

Curtis E. Sherrer

Group Art Unit

1761



☒ Responsive to communication(s) filed on Jun 8, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 28-52 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 28-52 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Part III DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means “adapted to distribute regularly and uniformly the current of stem or inert gas over all of the transverse surface area of the column” (Claim 28) and “cleaning means” of claims 41 and 42, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 28-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The claims' preambles use the unconventional term "characterized by" rather than "comprises," "consists of," or "consisting essentially of."
6. There is no antecedent basis for the phrase "said first means," as found in claim 30.
7. The use of the phrase "optionally" lends indefiniteness to Claim 37 because it is unclear if the following limitation is included in the claim.
8. The scope of the phrases "near the boiling point" (Claim 28), "height sufficient" (Claim 32) and "significant evaporation" (Claim 51) are unknown.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 28-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leva (U.S. Pat. No. 3,933,953) in view of McNulty et al (U.S. Pat. No. 5,645,953) in further view of Chuang (U.S. Pat. No. 5,387,377) and in further view of Hardwick (Handbook of Brewing, pp. 294-99).
11. The claimed apparatus recites means for three parts of gas/liquid contact column. The claimed column includes a top part, a bottom part, in between top and bottom part, a filler body holding area, cleaning means, and inlet and outlet control. While the art cited below is not

directed to an apparatuses necessarily for treating beer wort, the recitation of this language is merely the intended use of the apparatus.

12. With regards to the top part of the apparatus, Leva (Fig. 1) teaches a liquid/gas contacting apparatus whereby heated oil to be deodorized enters via pipe 3 (and valve 33) from preheater 19, and steam enters via pipe 2. The oil is emptied on top of the liquid distributor 21 and then onto the plate stacks. It can be seen from Figure 1, that the distributor allows liquid to feed through the small pipes and gas rises up through a plurality of larger openings (chimneys) that are separate from the liquid feed pipes. Leva does not teach the limitations with regard to bottom part of the apparatus, the filler body holding area of the apparatus and all the inlet and outlet controls of the apparatus.

13. With regards to the bottom part of the apparatus, McNulty et al teach gas/liquid contacting apparatus that contains a liquid collector-distributor device that include chimneys that operate as gas risers, and a plurality of chimney hats that are inclined (see Figs. 1 and 2).

14. With regards to the filler body holding area of the apparatus, Chuang teaches a packed column whereby filler body, such as that described in col. 5, lines 6-10, that are located under the liquid distribution arm 10. (See Figs. 1-4).

15. With regards to the cleaning means of the apparatus, Hardwick teaches that brewing kettles routinely will be installed with "clean-in-place" means for cleaning the vessel. (Page 294 and Figs. 35 and 36). While Hardwick does not teach the placement of the cleaning means in a

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packed tower, it is considered that those in the art can determine how many and where such means should be placed in wort boiling apparatus.

16. With regards to the inlet and outlet controls of the apparatus, it is considered that such control means, such as solenoid valves or pneumatic are notoriously well known in the flow control art.

17. It would have been obvious to those of ordinary skill in the art to manufacture a gas/liquid contacting apparatus that incorporates the various means disclosed by the cited prior art above as they are all well known means for performing gas/liquid contacting processes. Again, while the cited references do not disclose using the cited means for treating beer wort, such a use is not a limitation of the apparatus claims and therefore it is considered that the cited teachings provide for a *prima facie* case of obviousness.

18. Claims 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruger et al (U.S. Pat. No. 4,550,029) in view of Leva in view of McNulty et al in further view of Chuang and in further view of Hardwick.

19. Leva in view of McNulty et al in further view of Chuang and in further view of Hardwick teach that cited above but do not teach the use of apparatus for treating beer wort. Kruger teaches treating beer wort with steam or an inert gas in a counter-flow gas/liquid contacting column (col. 1, line 63 to col. 3, line 12). Kruger et al teach the injection of steam/inert gas into a wort "to

degas and free the wort from undesirable foreign substances" (Abstract) and additionally saves energy. (Col. 1, line 56 to col. 2, line 19). An apparatus is associated with said boiling (Fig. 1) whereby the wort is sprayed in at the top while the steam/inert gas is injected into the bottom.

20. The wort distribution means are not fully detailed but the figure shows that it is sprayed in several directions and that it falls on an upper tray. The steam/inert gas distribution means is located in the lower section of the apparatus and comprises a perforated plate.

21. It would have been obvious to those of ordinary skill in the art to perform the process of Kruger et al in apparatus as taught by Leva in view of McNulty et al in further view of Chuang and in further view of Hardwick because said means are commonly used for separation processes such as that taught by the prior art.

Conclusion

22. No claim is allowed.

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

24. Lee et al (U.S. Pat. No. 5,106,544) disclose a method of and apparatus for vapor distribution.

25. Eckert (U.S. Pat. No. 3,392,966) discloses a treating tower inductor.

26. Harper et al (U.S. Pat. No. 4,476,069) discloses a liquid distribution apparatus.

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27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Sherrer whose telephone number is (703) 308-3847. The examiner can normally be reached on Tuesday through Friday from 6:30 to 4:30.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Lacey, can be reached on (703)-308-3535. The **fax phone number** for this Group is (703)-305-3602.

29. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Curtis E. Sherrer', with a long horizontal flourish extending to the right.

Curtis E. Sherrer

September 27, 1999